

RECORD OF COMMUNICATION

☐ PHONE CALL ☐ DISCUSSION ☐ FIELD TRIP ☐ CONFERENCE
☐ OTHER (SPECIFY)

(Record of item checked above)

TO:

FROM:

DATE

TIME

SUBJECT

Vulcan Meeting 5/30/84

SUMMARY OF COMMUNICATION

I attended annual Vulcan Chemical Co. meeting with KDHE on 5/30/84. Also in attendance from EPA were Dave Svingen (TAT contractor), Chet McLaughlin (WMBR branch chief) & Ralph Langemeier (WATR/DRNK chief). A copy of the other attendees from Vulcan & KDHE is attached. Also attached is a copy of the agenda. *acting*

Much of the discussion pertained to the EPA recommendations made to KDHE in our letter to Bill Bryson. In general both KDHE & VMC seemed receptive to the recommendations made in that letter & this meeting. The following is a summary as I recall it on the discussions that took place during that meeting:

I. Subsidence

The initial discussions were re a site some 10 miles from the VMC plant, where they had done some solution mining for brine. Apparently there has been some subsidence at this location. The concern is both structural (i.e. collapse) and the potential for salty water to reach & contaminate the adjacent river. KDHE/BOG was fully aware of this situation & seemed satisfied that it was being adequately addressed. KDHE permits solution mining and feels that the environmental monitoring being done has shown no releases so far. I do not consider this to be part of the VMC site activities that I have reviewed & had no previous knowledge of this site or activity.

Groundwater Monitoring

II. Most of the discussion was on this topic. Quite a bit of discussion re trends in gw quality as affected by the remedial pumping and injection program. KDHE & VMC feel that levels of chlorides are improving. Levels of organics tend to fluctuate. This is probably attributable to various sources of organics & multiple plumes. *(LAA / DRNK)*

VMC clarified the processes by which the withdrawn gw is injected. Tim Amsden had had a question from the public at a public meeting in Wichita asking whether or not the chlorinated benzenes in gw were being injected into the deep wells at this site. Vic Ziegler had discussed this with Larry Knoche. It had been my understanding that Vic had been told that the gw was being pretreated in the incinerator to drive off the organics prior to injection. Also that much of the withdrawn gw was being reused as process water.

VMC reported that this had been considered but had been found to be unfeasible.

CONCLUSIONS, ACTION TAKEN OR REQUIRED

At present withdrawn water is pumped to a holding pond & then injected into the deep well-no pretreatment. There is something of an air break in the holding pond though. The concentrations of Cl & SO4 prevented the reuse of this water as process water. *This information should be forwarded to Tim Amsden. Ralph Langemeier, chief WATR/DRNK was present for this discussion. I assume that Ralph will be advising Tim of this.

Also VMC was present when this question was asked and understood it differently. VMC understood the question to ask if currently generated hex wastes (such as were previously landfilled) were being injected into the deep wells. VMC said that they had answered that question: No hex wastes were ~~not~~ being disposed into the injection well.

INFORMATION COPIES

CONTINUED ON BACK PAGE TWO

TO:

30299042



Superfund

Regarding injection VMC also stated that it was their belief that the limestone of the Arbuckle formation, into which wastes are injection, would effectively degrade the chlorinated ~~hydrocarbons~~ ^{solvents}. VMC also stated that there was enough capacity within the Arbuckle below Vulcan to accept wastes for another 50 (500?) years, at currently injected rates of disposal.

VMC then described a lot of the other water recycling projects they have implemented or planned. So far they have not found a way to recycle the withdrawn gw.

Vulcan was asked if they had investigated gw use and contamination to the southeast, which is the regional direction of gw flow. Various gw uses & pumpings have tended to previously pull gw in other directions. VMC & KDHE said that they thought the plume had been adequately defined in this area. I asked that KDHE share this information with Vic Ziegler, who although not present at this meeting had raised this as a concern as stated in EPA's letter to KDHE. Bill Bryson agreed to do this. VMC also explained that they do periodic monitoring of the private wells in that direction & so far have not detected anything that could be attributed to VMC.

VMC explained how they had been able to have the municipal water line run up to the homes on 55th & Hoover. They subsidized the installation of that line. Previously some of these homes had been receiving carbon filtered water units. At present all but 2 (or 3) of the homes in this area ~~are~~ are on the alternate (Clearview) water supply. One did not want to be & the other (s) were too far from the line. These other homes are receiving either bottled drinking water or have carbon filter units. VMC is responsible for the maintenance of the units.

VMC also provided some specifications & details on the withdrawal & injection wells. I have these in my hand-written notes if anyone should want to see them. Others present for this meeting probably also have notes on this.

Groundwater Model

VMC explained some of the problems they are having calibrating the model. Organics appear especially hard to model trends. Chloride concentrations appear to be improving. Part of the reason for the variable concentrations of organics may be the multiple contaminant plumes from spills on the site.

The model also makes some assumptions that do not exactly replicate field conditions (i.e. that the upper and lower aquifers are completely separated. This is believed to be true under Vulcan but not through-out the boundaries of the model, which is 6X8 miles). Model designed to predict flow in both shallow & deep aquifers.

This led into discussion of the need to have the lab certified. If they are going to predict contaminant trends and flows based upon concentrations in ~~low to mid~~ mid ppb, they need to know that the lab is precise in this data. Bryson especially agreed with this. He has discussed with KDHE chemist Hammerschmidt how they will proceed on this. I suggested that they contact Bob Kloepfer, ENSV ~~1000~~ if they have an interest in participating in a blind audit.

Next related topic of discussion was on the recommendation EPA made re the feasibility study to look at other pumping rates (on gw withdrawal) in the upper vs lower aquifer. Once Dave Syngen explained our rationale on this (that a given volume of water pumped from the confined aquifer has a larger cone of depression than in the upper, unconfined aquifer) they agreed that this should be pursued. They will need to calibrate the model which should then be of some use in looking at altered pumping rates.

Hex Cake Landfill

During meetings Chet mentioned that a few years ago there had been some discussion about using lysimeters to determine if there was any water percolating through the cap. This had never been implemented. During the tour of the site around the landfill this was discussed again & VMC (Mason) agreed to consider. In addition agreed that he

had been considering doing some monitoring of leachate seepage around the toe of the landfill, if he could find any. Some surface water was observed on the NW side, but this was above the fill & was believed to be surface run-off.

The slope of the cap did not appear all that consistent. However this was believed to be the result of the application of some additional rubble fill above the clay cap. Therefore it does not appear the effectiveness of the cap, to encapsulate the wastes, has been compromised.

Flowmeters

Flowmeters had been purchased by VMC for installation in the monitoring wells along the southern (downgradient direction) side of the site. These had to be returned for recalibration. Readings from the flowmeter installed were somewhat inconclusive. This might be partly the function of the stagnant flow described, by VMC & KDHE, to the south of the site. VMC had wanted to assure that the additional interceptor well installed to the SW was sufficient to pull back the contaminated groundwater from that direction.

These flowmeters are newly developed devices. They are very sensitive to heat & extraneous vibrations, which can give misleading readings.

Deep Well Operation

Some additional information was provided on the operation of the deep wells. Deep wells have been used for the disposal of water at this site since 1957. Two deep wells had to be replaced. These were plugged under KDHE supervision.

KDHE indicated that they now had primacy for the UIC program. One of the commitments they made was to have all the Class I wells permitted this year. This requires new integrity testing of the casing. This is a costly process. VMC thought that they had done an equivalent assurance of the integrity of the casing & asked if this would suffice. They indicated that it would be an extreme hardship if they were to have to do this on all their injection wells this year. (They can not go into an injection well for less than \$30,000.) KDHE said that they would have to check on this. VMC may use the appeal process.

VMC said that the average concentration of chlorosolvs was 100 ppm in the water injected into the deep wells, and 25 ppm on chlorophenols, less than 1 ppm on the hexachlorinated benzenes. They have deep well injection capacity of 1750 gallons per minute, using all 5 wells. However they only use about 1200 g/m of that capacity. This gives them some flexibility. Essentially they have one extra injection well.

Community Relations

One comment in EPA letter was re the need for community relations. VMC explained what they are now doing in this regard. It seemed quite adequate.

This led to discussion of Vulcan's claim of CBI on 3007 response. I explained the difference between sensitive information & CBI documents. I said that our initial ruling was to uphold CBI claim. However CNSL will make final ruling & I do not know what that will be. However even if EPA Rules that documents are not CBI we have no intention in providing them to anyone without an FOIA request.

The status of the A.D. Gillen FOIA request was clarified. Vulcan had contacted Gillen and provided the information he had requested from EPA. (I had suggested this as the best way for all, to handle this FOIA.)

Dioxin

I explained the tier policy of EPA on dioxin. I said that Vulcan had been identified as one of the sites in Region VII whose manufacturing operations had the potential to result in dioxin contamination. Explained that site would be ~~interested~~ visited by ENSV EP&R (or FIT) and sampled. Did not know when this would happen. VMC expressed some interest in doing the sampling themselves instead of EPA. I explained that they would have to

satisfy EPA On the metho f sample collection & analyse If VMC wants to follow up on this they will Contact Pat Costello.

Site Tour

Prior to the meeting we had driven around the perimeter of the site. We saw a number of the deep & shallow monitoring wells. We were also looking for the numbers of homes in the area and related populations.

Following the meeting the EPA personnel were accompanied on a tour of the site. Units of interest which we saw were the old hex cake landfill, a holding pond for run-off water (lined with HDPP), and some of the injection wells.

This meeting summary/trip report was typed on 6/1/84. It is based upon notes I took during the meeting & upon my personal recollections of the meeting. The other representatives of EPA were also taking notes & might have a slightly different understanding of various portions of the meeting. *del*

AGENDA FOR KDHE MEETING

MAY 30, 1984

10:00 a.m.

ANNEX CONFERENCE ROOM

I. Brine Field

A. Review Subsidence Data

B. Discuss On-going Plans

II. Groundwater Management Plan

A. Current Groundwater Plan

1. Interceptor Wells

2. Monitoring of Static Water Levels

3. Sampling Program

4. Groundwater Model

5. Flow Meter

III. 55th and Hoover Assessment

IV. Deep Well Operations

A. Capacity vs. Interceptor Well Pumpage and Plant Disposal

B. Deep Well Reporting

C. Maintenance Program

D. Wastewater Reduction Projects

V. Community Awareness

A. Open House Program

B. General Community Projects

are you asking about CBI

notes attached are my
meeting notes from
this meeting. They're
rough. Most of the people
that needed to know
what was going on were
there. Do have to clean
them up - Lin pressed
for time. all 5/31/84

P.S.
They seem to have accepted
all of our recommendations

2x yr deep 2x yr
some for RORP
witnessed by CM
split w RORP
new
devil down hole pump

262,500

1750 000
262500 000
262500 000
1051
108/25 - 108/20

Annual KDHE and Vulcan meeting

5-30-84

Glenn J. Mason
Dave Harrison
Bill Bryson
Ralph E. O'Connor
Larry Knoche
Dave Crawford
David Svingen
Tom Parrott
Chet McLaughlin
Ralph Langemeier
Allan Abramsen
Bill Minish
Jim Boyd

Vulcan - Environmental Coordinator
Vulcan - Tech. Manager
~~KDHE~~ ^{KDHE} - Bureau of Oil Field
KDHE - Wichita
KDHE Bureau of Oil Field
EPA Superfund Section
Western SPER
VULCAN - Div. Env. Geol.
EPA Water Man. Br.
EPA - Drinking Water Br.
KDHE - Topeka - Div of Envir
VULCAN - Asst Plant Mgr.
Vulcan - Plant Mgr

sh
SSM